A new species of House Snake from Swaziland, with notes on the status of the two Genera Lamprophis and Boaedon

by

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Lamprophis swazicus new species

INTRODUCTION

In October 1968, two snakes were sent to me for identification by Mr J. Culverwell who found them at Forbes Reef, Swaziland. A third snake of the same kind, originally collected by Mr A. Schaefer at Havelock, Swaziland in January 1968, was sent to Mr W. Haacke, Transvaal Museum, who then loaned it to me for study.

These three specimens were recognized as being some type of House Snake, but could not be classified to any known South African species using the early key of Boulenger 1893 or the recent key of FitzSimons 1966. Furthermore, their characteristics did not fit in with those of any known African House Snake species as given by Broadley (1969), nor with the characteristics of species in other genera, such as *Lycodonomorphus*, *Bothrolycus*, *Bothrophthalmus* and *Pseudoboadon* which Boulenger (1893) and Dowling (1969) consider to be closely related to the House Snakes. The Swaziland snakes therefore, have apparently not been described before and can be considered as a new species.

Although there is some doubt as to which of the two house snake genera (*Lamprophis* or *Boaedon*) the new species belongs, it has been placed in the genera *Lamprophis* for reasons discussed later in the paper.

MATERIAL

Three specimens: unsexed.
Holotype: PEM 1514/81.
Paratypes: PEM 1514/82.
Type locality: Forbes Reef, Swaziland (26° 42′ S, 31° 05′ E).

DIAGNOSIS

A colubrid snake of the *Lamprophis* genus having one apical pit per scale and 17 scale rows at midbody. The ventrals exceed 200, and the subcaudals exceed 80 in number. There are nine maxillary teeth. The colour is light beige dorsally fading to creamy/white ventrally.

DESCRIPTION

Holotype: PEM 1514/81.

The lepidosis of the head is shown in Figure 1. The drawings were made directly from photographs.

Rostral twice as wide as deep and barely visible from above; nasal shield semi-divided; frontal shield only $1\frac{1}{2}$ times longer than broad; one pre-ocular and two post-oculars with temporals 1 + 2. Eight upper labials of which 3rd, 4th and 5th enter the orbit; 1st upper labial not in contact with loreal. Ten lower labials on the right and nine on the left. The different labial count on left and right sides is probably an abnormality and the true number, judging by the other specimens, is 10 on both sides. The head is about $1\frac{3}{4}$ times broader than the neck. Pupil brown and vertically elliptical.

The body scales are smooth and have one apical pit each. There are 206 ventrals (counted according to the system proposed by Dowling 1951a) and 88 paired subcaudals. The anal is entire.

There are nine maxillary teeth present increasing in size to the fourth and then diminishing again posteriorly.

The snake is light beige in colour and 568 mm long (Body 430 and tail 138).

Paratypes: (PEM 1514/82; TM 34836).

Both paratypes are similar to the holotype but there are slight differences.

PEM 1514/82. The lower labial count differs on left and right sides—on the left there are 11 and on the right 10. On both sides there is an extremely shallow labial—7th on the left, 6th on the right. The labial arrangement however, is probably an abnormality and therefore, of little systematic importance.

Ventrals 207, subcaudals 80.

There are also nine maxillary teeth but there is a distinct gap between the 4th and 5th tooth. The snake is slightly lighter beige than the holotype. In addition each dorsal scale has a slightly darker edge which gives a very lightly reticulated effect. This animal was the smallest of the three at 192 mm (Body 126, tail 66). It was dissected after it died and a feather was found in the gut.

TM 34836, Ventrals 208, subcaudals 91.

The nine maxillary teeth are also separated by a gap between the 4th and 5th tooth, but this gap is narrow and hardly wider than the spaces between the other teeth.

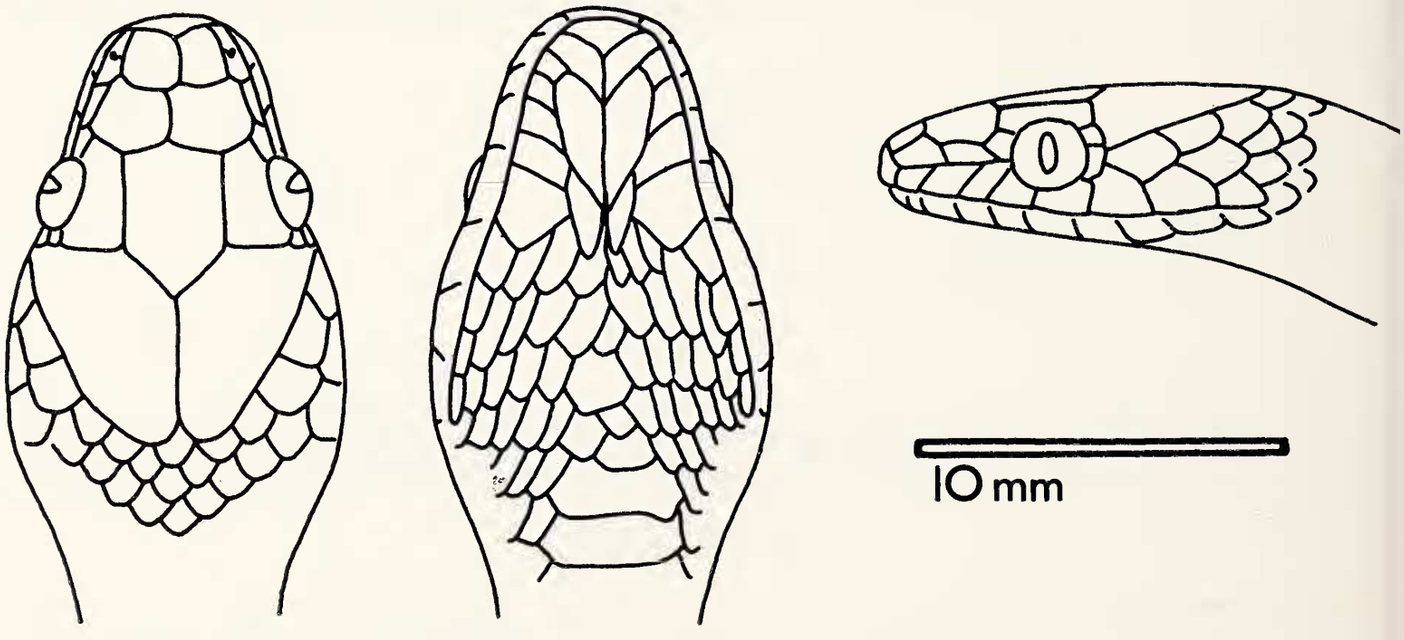

Fig. 1. Dorsal, ventral and side views of the head of the holotype *Lamprophis swazicus* showing head scaling.

It is darker beige, almost brown, in colour and yellow/brown ventrally. This snake however, had been in preservative for a year and a half which may have caused the darkening.

It is 730 mm long (Body 545, tail 185).

REMARKS

The South African house snakes are separated into two genera, *Lamprophis* and *Boaedon*. FitzSimons (1962), mentions that their separation hardly seems justifiable because they appear so closely related. He does however, distinguish *Lamprophis* from *Boaedon* using the characteristics shown in Table 1.

TABLE 1

	Lamprophis	*Boaedon*
Apical pits	absent	present
Ventrals	170—198	186—237
Mid-body scales	19—25	21—35
Frontal shield	short, broad	long, narrow
Maximum teeth number	15—19	18—24
Maximum teeth size	shorter ant.	longer ant.

The new snake however, does not have all the characteristics common to any one particular genus. Its characteristics are shown in Table 2.

TABLE 2
L. swazicus

Apical pits	present
Ventrals	206—208
Mid-body scales	17
Frontal shield	short, broad
Maximum teeth number	9
Maximum teeth size	shorter ant.

Some features (short, broad frontal, shortest maxillary teeth anteriorly) are characteristic of *Lamprophis*, while some (apical pits, ventral count of over 200) are characteristic of *Boaedon*.

Nevertheless, despite the fact that the new snake has some features in common with *Boaedon*, it has been assigned to the genus *Lamprophis*. The reasons for this are twofold.

Firstly, FitzSimons also separates *Lamprophis* from *Boaedon* by using the average mid-body scale-count and the average maxillary tooth-count because these differ between the two genera. The new species, although not having a mid-body scale and maxillary tooth count falling within the limits given for *Lamprophis*, is closer to it than to the limits given for *Boaedon*.

Secondly, Broadley (1969) has pointed out that these average differences and in fact all the characteristics formerly used to define the two genera, are very vague and do not definitely separate them. It seems as if the species of African house snakes form a continuous series rather than two complete and separate groups. Broadley draws attention to this fact and suggests that the two genera may need to be merged. This suggestion is now further substantiated with the discovery of the new species, for it has characteristics of both genera. If in the future more

evidence comes to hand and the genera are merged, then *Boaedon* will become a synonym of the earlier name, *Lamprophis*. Thus by naming the new species *Lamprophis* and not *Boaedon*, a future synonomy will be avoided.

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